

Prioritising investments in transport infrastructure resilience in Vietnam



Vietnam Transport Knowledge Series

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Addressing Climate Change in Transport

Volume 2: Pathway to Resilient Transport

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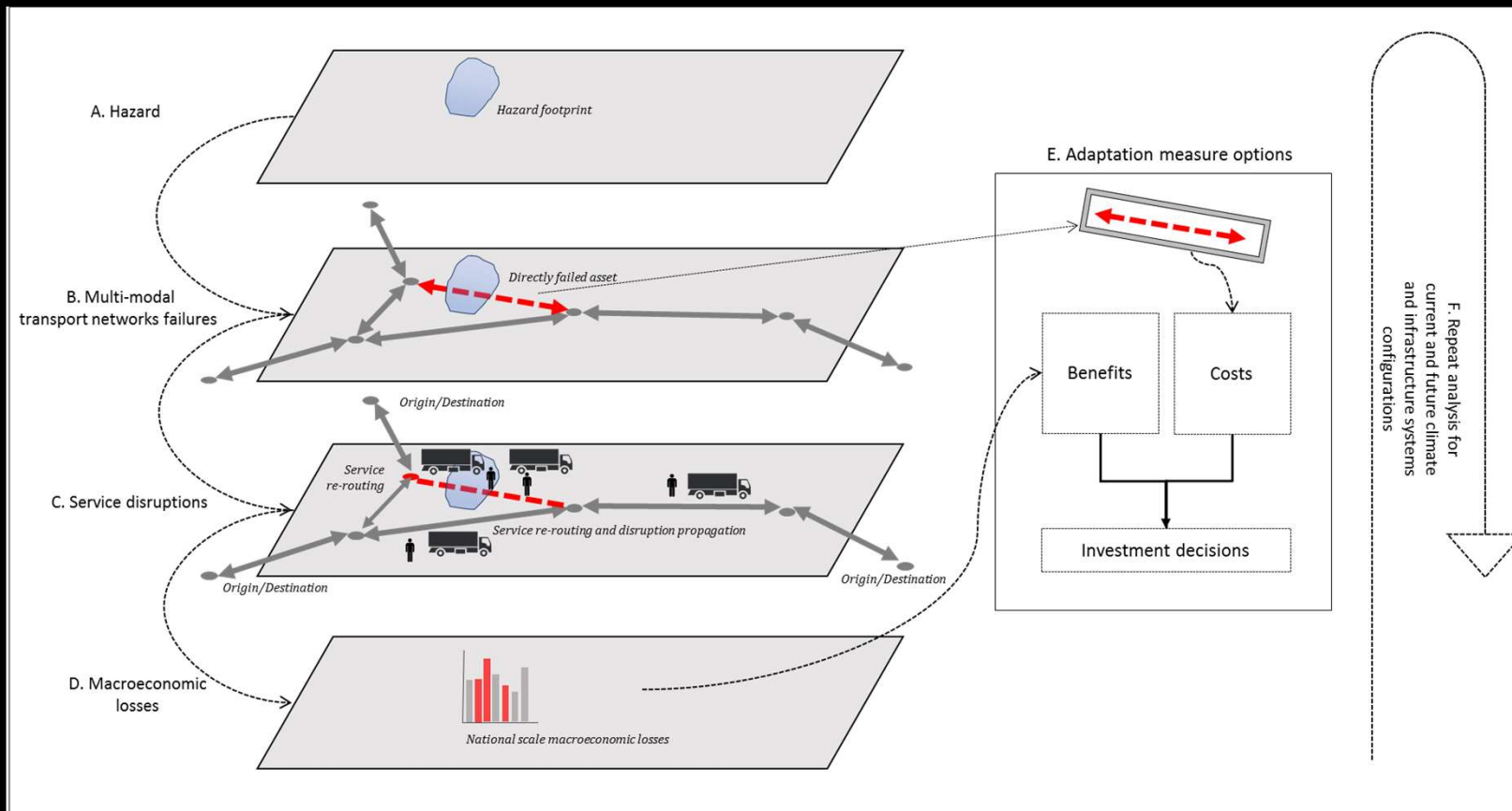
FINAL REPORT
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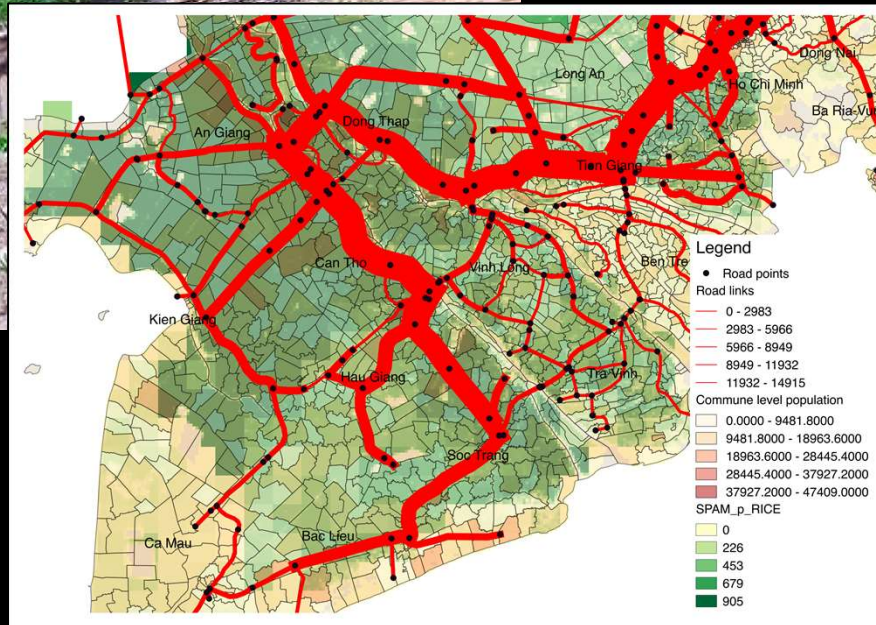


Network risk analysis forms the basis for prioritising investments in resilience



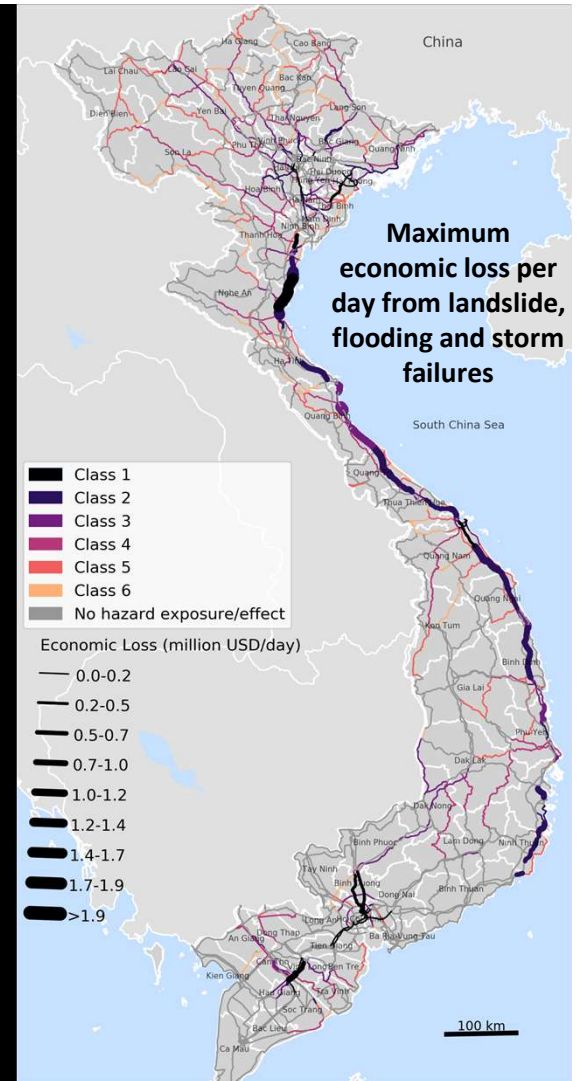


Landslide at National highway 4h in Lai Chau – June 2014



Most important routes for agriculture

Economic losses per day:



Adaptation options

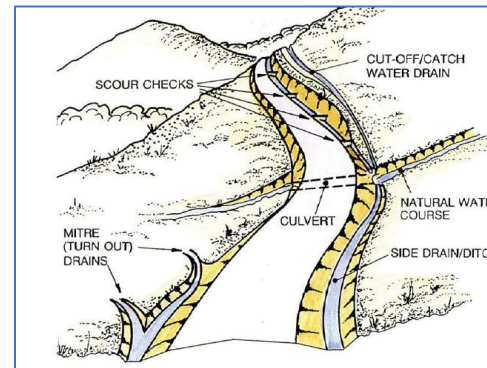
Pavement improvement

Upgrading to gravel or sealed or full concrete



Drainage

Side, face and culverts



Earthworks

Embanking and cut slope construction



Slope protection

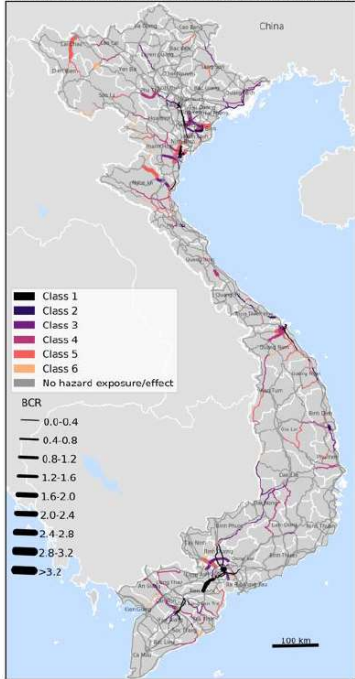
Gabions, river bank protections, bioengineering



Sources: Jasper Cook

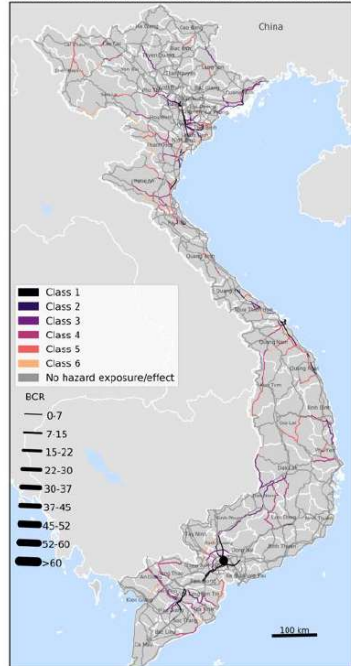
Benefit-cost ratios of investment in enhancing the resilience of the transport network

National roads (Max BCR of adaptation over time)



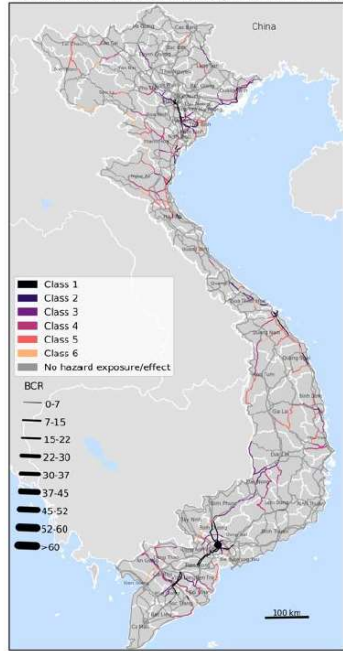
(a) Current 2016 river flooding

National roads (Max BCR of adaptation over time)

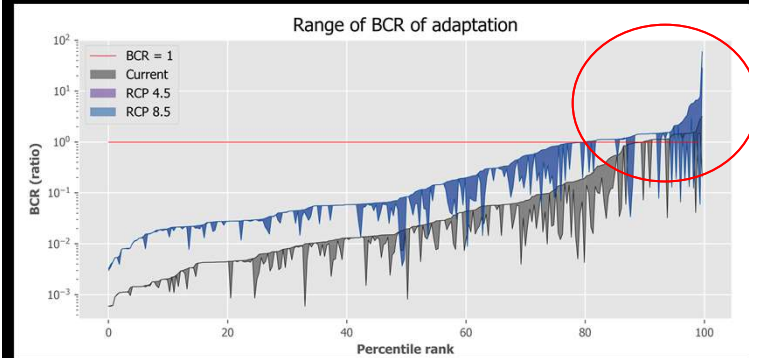


(b) Future 2030 river flooding under RCP 4.5 emission scenarios

National roads (Max BCR of adaptation over time)



(c) Future 2030 river flooding under RCP 8.5 emission scenarios



Tools and capacity building

